REMARKS

Pending claims

Claims 1-19 have been canceled, and new claims 20-39 have been added. Support for new claims 20-39 can be found in the specification and the claims of the application as originally filed.

For the Examiner's convenience, the following tabulation demonstrates the correspondence of the newly added claims to the originally filed claims (now canceled):

Group Number	Original Claims	New Claims
Group I	14	20, 21
	15	29, 30
Group II	1	22
	6	23
	7	24
	8	26, 27
	9	25
Group III	18, 19	28
Group IV	10-13	
Group V	16, 17	38
Method of treatment using the composition of claim 29		31
Methods of screening for agonists/antagonists/compounds which modulate the activity of, the polypeptide of claim 20		32, 35, 39
A composition comprising an agonist/antagonist compound identified by the method of claim 32/35		33, 36
Method of treating a disease or condition associated with decreased /overexpression of functional HPRAP using the composition of claim 33/34		34, 37

Restriction Requirement and Required Election of Species

Applicants hereby elect, with traverse, to prosecute Group I, which includes and is drawn to Claims 20, 21, 29 and 30, for at least the following reasons.

Applicants note that, in light of the subject matter recited by claims 20-39, the election of species requirement has been rendered moot.

Applicants submit that the invention encompassed by the claims of Group II (claims 22-27), drawn to human serine protease homolog genes, vectors, host cells and methods of expression, and the invention encompassed by claim 28 of Group III, drawn to human serine protease homolog antibodies and methods of making, could be examined at the same time as the invention encompassed by the claims of Group I without imposing an undue burden on the Examiner. This is because the scope of the products recited by the claims of Groups II and III are within the scope of the products recited by the claims of Group I. For example, a search of the prior art to determine the novelty of the polypeptides of Group I would provide information regarding the novelty of the polynucletides encoding those polypeptides, as well as the vectors, host cells and methods of expression of Group II, and the antibodies and methods of making same of Group III. Put another way, given the interrelationship of the claimed polynucleotides, polypeptides and antibodies, a thorough search of the prior art to determine the novelty of the polypeptides would almost certainly reveal references in which two or more of those inventions were disclosed. Hence, the additional burden on the Examiner to examine all of the claims of those Groups would be minimal.

In this regard, Applicants have included a copy of the reference entitled "NUDEL Is a Novel Cdk5 Substrate that Associates with LIS1 and Cytoplasmic Dynein (Niethammer, M. *et al.* (2000) Neuron **28**:697-711, which discloses a protein having 100% sequence identity with the polypeptide of SEQ ID NO:1 claimed by Applicants, but also a polynucleotide encoding that sequence, methods of expressing the protein using those polynucleotides, recombinant vectors, transfected cell lines, and antibodies specific for the NUDEL protein, as well as methods of making those antibodies. This reference corroborates Applicants' assertion that a search of the prior art to determine the novelty of the polypeptides of Group I would provide information regarding the novelty of the inventions of Groups II and III, and that the Examiner would be able to examine the claims of those groups without undue burden.

Applicants further traverse on the grounds that the Examiner could also examine the claims of Groups I, and II together without undue burden, in view of the fact that they are related to, although of

different scope from, claims already allowed in the ancestor applications. For the Examiner's convenience, those claims are as follows:

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1. An isolated and purified 1. An isolated and purified polynucleotide encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:1.

2. An isolated and purified polynucleotide variant having at least 90% polynucleotide sequence identity to the polynucleotide of claim 1, wherein said variant encodes a polypeptide having protease activity.

3. A probe comprising the polynucleotide of claim 1.

4. An isolated and purified polynucltide having a sequence which is completely complementary to the polynucleotide sequence of claim 1.

5. An isolated and purified polynucleotide comprising a polynucleotide sequence of SEQ ID NO:5.

6. An isolated and purified polynucleotide variant having at least 90% polynucleotide sequence identity to the polynucleotide of claim 5, wherein said variant encodes a polypeptide having protease activity.

7. An isolated and purified polynucleotide having a sequence which is completely complementary to the polynucleotide of claim 5.

8. An expression vector comprising the polynucleotide of claim 1.

9. A host cell comprising the expression vector of claim 8.

10. A method for producing a polypeptide, the method comprising the steps of:

a) culturing the host cell of claim 9 under conditions suitable for the expression of the polypeptide; and

b) recovering the polypeptide from the host cell culture.

11. A method for detecting a polynucleotide in a sample, the method comprising the steps of:

(a) hybridizing the polynucleotide of claim 4 to at least one of the nucleic acids in the sample, thereby forming a hybridization complex; and

(b) detecting the hybridization complex, wherein the presence of the hybridization complex correlates with the presence of the polynucleotide encoding the polypeptide in the sample.

12. The method of claim 11 wherein the nucleic acids of the biological sample are amplified by the polymerase chain reaction prior to the hybridizing step.

13. A method of using a polynucleotide to screen a library of molecules or compounds to identify at least one molecule or compound which specifically binds the polynucleotide, the method comprising:

a) combining the polynucleotide of claim 1 with a library of molecules or compounds under conditions to allow specific binding, and

b) detecting specific binding, thereby identifying a molecule or compound which specifically binds the polynucleotide.

14. The method of claim 13 wherein the library is selected from DNA molecules, RNA molecules, artificial chromosome constructions, peptides, and proteins.

15. A method of using a polynucleotide to purify a molecule or compound which specifically binds the polynucleotide from a sample, the method comprising:

a) combining the polynucleotide of claim 1 with a sample under conditions to allow specific binding, and

b) detecting specific binding between the polynucleotide and a molecule or compound,

c) recovering the bound polynucleotide, and

d) separating the polynucleotide from the molecule or compound, thereby obtaining a purified molecule or compound.

Applicants additionally submit that in any case, there is minimal additional burden on the Examiner to examine the claims of I, III and V in addition to the claims of Group II, particularly in view of the additional burden on Applicants to file, prosecute and maintain yet additional applications in this family, and respectfully request that the Examiner consider doing so.

Accordingly, because the search required to identify prior art relevant to the claims of Groups I-III and V would substantially overlap, Applicants respectfully submit that examination of claims 20-30 would pose no undue burden. Thus, Applicants request reconsideration and withdrawal of the Restriction Requirement and examination of at least claims 20-30 together in one application. Applicants reserve the right to prosecute the subject matter of non-elected claims, or of any subject matter disclosed but not herein claimed, in a later continuation or divisional application.

Rejoinder of Method Claims

Applicants further submit that Claims 31, 32, 35 and 39 are methods of using the polypeptides of Group I, which should be examined together with the polypeptides of Group I, per the Commissioner's Notice in the Official Gazette of March 26, 1996, entitled "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)" which sets forth the rules, upon allowance of product claims, for rejoinder of process claims covering the same scope of products.

Further, at the point those claims are rejoined and examined, Applicants submit that there would be no undue burden on the Examiner to also rejoin and examine claims 33 and 36, drawn to compositions comprising agonist and antagonist compounds, respectively, identified via the methods of claims 32 and 35, respectively. Finally, to the extent the subject matter of claims 33 and 36 is found to be allowable, the Examiner should rejoin and examine claims 34 and 37, drawn to methods of using the compositions recited in claims 33 and 36, pursuant to the authority cited above.

It is noted that, while Applicants have canceled and not repeated new versions of the claims of Group IV (original claims 10-13) or new versions of original claims 2-5, Applicants expressly assert that these claims have been canceled for reasons relating to cost and efficiency of prosecution of the presently elected claims, and not for reasons relating to patentability. Applicants further expressly reserve the right to pursue the subject matter of those canceled claims, or any other subject matter disclosed but not herein claimed, in a later continuation or divisional application.

Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. 09-0108.

Respectfully submitted,
INCYTE GENOMICS, INC.

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Cathleen M. Rocco, M.S., J.D.
Reg. No. 46,172
Direct Dial Telephone: (650) 845-4587

3160 Porter Drive
Palo Alto, California 94304
Phone: (650) 855-0555
Fax: (650) 849-8886

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Paragraph(s) beginning at line 1 of page 1 has been amended as follows:

This application is a divisional of USSN 09/071,709, filed May 1, 1998[.], now U.S. Patent No. 06171790 B1, issued January 9, 2001.

IN THE CLAIMS:

Claims 1-19 has/have been canceled.

Claims 20-39 have been added.